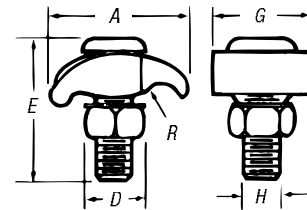


Structure Grounding

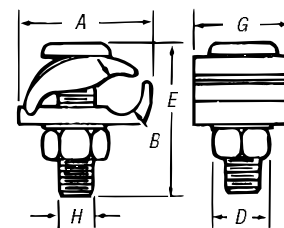
Bolt features square shank to prevent turning and enable clamp to be tightened with a single wrench.

Type GTC — Tower Ground Clamps

- Castings of high-strength, corrosion-resistant copper alloy
- GTC23 and GTC24 are two-piece clamps for connecting ground lead cable to flat metal surface — ideal for grounding substations on tower footings
- GTC13 and GTC14 are economical one-piece clamps, which perform the same function as two-piece clamps, except under-pad support is omitted and conductor connects directly to tower
- Add suffix L to catalog number for ½" channel thickness



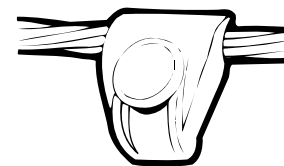
Type GTC 13 and 14



Type GTC 23 and 24

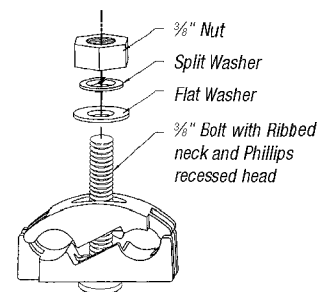


CAT. NO.	CONDUCTOR RANGE					DIMENSION (IN.)						
	MAX.	MIN.	MAX. (MM²)	MIN. (MM²)	CHANNEL THICKNESS	A	B	D	E	G	H	R
GTC13	2/0 Str.	#4 Sol.	67.4	21.1	¼	1 15/32	—	3/16	1 21/32	1 1/32	3/8	1/32
GTC14	250 kcmil	2/0 Str.	126.6	67.4	¼	1 15/16	—	3/4	1 15/16	1 13/32	1/2	3/16
GTC23	2/0 Str.	#4 Sol.	67.4	21.1	¼	1 41/64	7/16	3/16	1 21/32	1 3/32	3/8	—
GTC24	250 kcmil	2/0 Str.	126.6	21.1	¼	1 61/64	3/8	3/4	1 15/16	1 3/8	1/2	—



For use with aluminum or copper conductors. CTG250 Wide-Range Tower Ground Clamp

- May be used in aluminum or galvanized-steel cable tray
- Ribbed neck on the bolt prevents rotation during tightening if .440" dia. hole is used



CAT. NO.	WIDE RANGE (2 SIDES)	HEIGHT	WIDTH	DEPTH	NUT (FLATS)
CTG250	#2 Sol. (.258 Dia.) 250 kcmil (.575 Dia.)	1.95	2.00	1.13	.560

Tin-plate body
Galvanized hardware

Structure Grounding

Dual-rated for both copper and aluminum conductor.

Aluminum Lay-in Lug Connector

- Manufactured from 6061-T6 aluminum alloy for maximum strength and conductivity
- Open-faced design enables installer to quickly lay-in grounding conductor as jumper to multiple conduits with no break in ground conductor

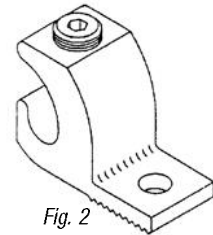
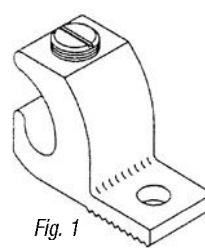
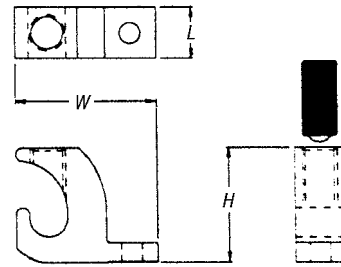


Fig. 1

Fig. 2



CAT. NO.	FIG. NO.	COND. RANGE AWG		STUD SIZE		DIMENSIONS					
						H		W		L	
		IN.	(MM²)	IN.	(MM)	IN.	(MM)	IN.	(MM)	IN.	(MM)
LL414	1	4-14	16-1.5	.22	5.59	.78	19.81	.38	9.65	1.07	27.18
LL1014	1	1/0-14	50-1.5	.27	6.86	1.17	29.72	.60	15.24	1.50	38.10
LL306	2	3/0-6	70-16	.33	8.38	1.56	39.62	.80	20.32	2.00	50.80
LL2506	2	250-6	120-16	.33	8.38	1.79	45.47	.80	20.32	2.20	55.88

90° C Rating (486B Listed)

UL® Listed for direct burial. Copper Lay-in Lug Connector

- Ideal for swimming pool grounding applications
- Carries "DB" marking for direct burial
- Open-faced design enables installer to quickly lay-in grounding conductor as jumper to multiple conduits with no break in ground conductor



CAT. NO.	COND. RANGE AWG		STUD SIZE		DIMENSIONS					
					H		W		L	
	IN.	(MM²)	IN.	(MM)	IN.	(MM)	IN.	(MM)	IN.	(MM)
CULL414	4-14	16-1.5	.22	5.59	.78	19.81	.38	9.65	1.07	27.18
CULL414-TP*	4-14	16-1.5	.22	5.59	.78	19.81	.38	9.65	1.07	27.18

90° C Rating (486B Listed)

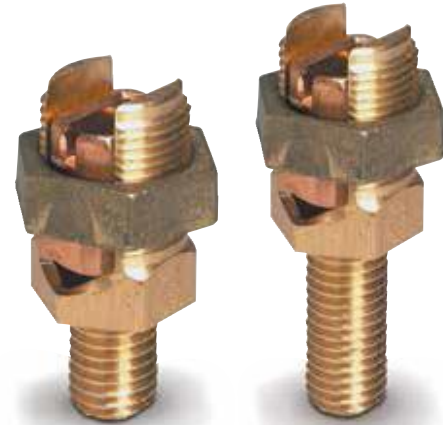
* Tin plated

Structure Grounding

Designed for grounding one or two cables to steel structure or transformer.

Service Post Connectors

- For copper-to-copper connections
- Can also be used to tap one or two cables from bus bar
- Bolts machined from high-conductivity bronze alloy
- Nuts cold-formed from high-strength, corrosion-resistant copper alloy
- Pressure bars copper through 4/0 and copper alloy for 350 kcmil and above
- Bolts and nuts of traditional Blackburn hex design for easy installation
- Available in sizes to accommodate AWG copper conductor ranges of #12–500 kcmil stranded and #12–#2 solid
- Both single- and double-conductor and short- and long-stud versions available
- UL® 486A and UL® 467 Listed



Type SP-S — Service Post Connectors, Short Stud



CAT. NO. CONDUCTOR		CONDUCTORS STRANDED		AWG MM² SOLID		DIAMETER RANGE (IN.)	STUD SIZE
DOUBLE	SINGLE	MAX.	MIN.	MAX.	MIN.		
SP0DS	SP0SS	8 6mm²	12 4mm²	8 10mm²	12 4mm²	.146–.081 —	¼–20 x ½
SP1DS	SP1SS	7 10mm²	10 6mm²	6 10mm²	10 6mm²	.164–.102 —	¼–20 x ½
SP2DS	SP2SS	5 16mm²	10 6mm²	4 —	10 —	.206–.102 —	⅝–18 x ⅝
SP3DS	SP3SS	3 25mm²	10 6mm²	2 —	10 —	.26–.102 —	⅝–16 x ⅝
SP4DS	SP4SS	1 35mm²	8 10mm²	2 —	8 —	.332–.129 —	⅝–16 x ⅝
SP5DS	SP5SS	1/0 50mm²	2 35mm²	1/0 —	2 —	.373–.258 —	½–13 x ¾
SP6DS	SP6SS	2/0 50mm²	2 35mm²	2/0 —	2 —	.419–.258 —	½–13 x ¾
SP8DS	SP8SS	4/0 95mm²	2 35mm²	4/0 —	1 —	.528–.289 —	⅝–11 x 1
SP9DS	SP9SS	350 150mm²	1/0 50mm²	— —	— —	.681–.373 —	⅝–11 x 1
SP10DS	SP10SS	500 240mm²	3/0 95mm²	— —	— —	.814–.47 —	¾–10 x 1¼

Type SP-L — Service Post Connectors, Long Stud



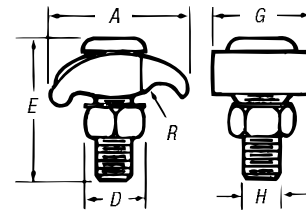
CAT. NO. CONDUCTOR		CONDUCTORS STRANDED		AWG MM² SOLID		DIAMETER RANGE (IN.)	STUD SIZE
DOUBLE	SINGLE	MAX.	MIN.	MAX.	MIN.		
SP0DL	SP0SL	8 6mm²	12 4mm²	8 10mm²	12 4mm²	.146–.081 —	¼–20 x 1
SP1DL	SP1SL	7 10mm²	10 6mm²	6 10mm²	10 6mm²	.164–.102 —	¼–20 x 1
SP2DL	SP2SL	5 16mm²	10 6mm²	4 —	10 —	.206–.102 —	⅝–18 x 1
SP3DL	SP3SL	3 25mm²	10 6mm²	2 —	10 —	.26–.102 —	⅝–16 x 1⅝
SP4DL	SP4SL	1 35mm²	8 10mm²	2 —	8 —	.332–.129 —	⅝–16 x 1⅝
SP5DL	SP5SL	1/0 50mm²	2 35mm²	1/0 —	2 —	.373–.258 —	½–13 x 1¼
SP6DL	SP6SL	2/0 50mm²	2 35mm²	2/0 —	2 —	.419–.258 —	½–13 x 1¼
SP8DL	SP8SL	4/0 95mm²	2 35mm²	4/0 —	1 —	.528–.289 —	⅝–11 x 1½
SP9DL	SP9SL	350 150mm²	1/0 50mm²	— —	— —	.681–.373 —	⅝–11 x 1½
SP10DL	SP10SL	500 240mm²	3/0 95mm²	— —	— —	.814–.47 —	¾–10 x 1¼

Structure Grounding

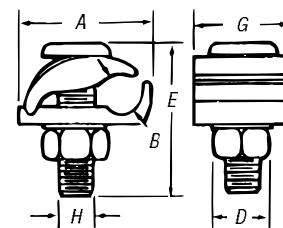
Bolt features square shank to prevent turning and enable clamp to be tightened with a single wrench.

Type GTC — Tower Ground Clamps

- Castings of high-strength, corrosion-resistant copper alloy
- GTC23 and GTC24 are two-piece clamps for connecting ground lead cable to flat metal surface — ideal for grounding substations on tower footings
- GTC13 and GTC14 are economical one-piece clamps, which perform the same function as two-piece clamps, except under-pad support is omitted and conductor connects directly to tower
- Add suffix L to catalog number for ½" channel thickness



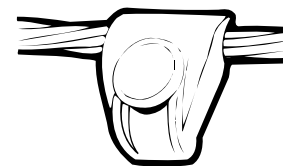
Type GTC 13 and 14



Type GTC 23 and 24

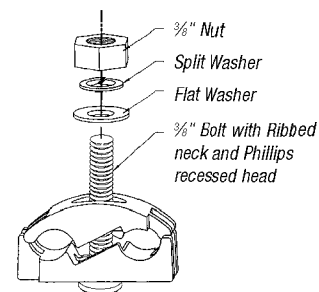


CAT. NO.	CONDUCTOR RANGE					DIMENSION (IN.)						
	MAX.	MIN.	MAX. (MM²)	MIN. (MM²)	CHANNEL THICKNESS	A	B	D	E	G	H	R
GTC13	2/0 Str.	#4 Sol.	67.4	21.1	¼	1 15/32	—	3/16	1 21/32	1 1/32	3/8	1/32
GTC14	250 kcmil	2/0 Str.	126.6	67.4	¼	1 15/16	—	3/4	1 15/16	1 13/32	1/2	3/16
GTC23	2/0 Str.	#4 Sol.	67.4	21.1	¼	1 41/64	7/16	3/16	1 21/32	1 3/32	3/8	—
GTC24	250 kcmil	2/0 Str.	126.6	21.1	¼	1 61/64	3/8	3/4	1 15/16	1 3/8	1/2	—



For use with aluminum or copper conductors. CTG250 Wide-Range Tower Ground Clamp

- May be used in aluminum or galvanized-steel cable tray
- Ribbed neck on the bolt prevents rotation during tightening if .440" dia. hole is used



CAT. NO.	WIDE RANGE (2 SIDES)	HEIGHT	WIDTH	DEPTH	NUT (FLATS)
CTG250	#2 Sol. (.258 Dia.) 250 kcmil (.575 Dia.)	1.95	2.00	1.13	.560

Tin-plate body
Galvanized hardware

Structure Grounding

Dual-rated for both copper and aluminum conductor.

Aluminum Lay-in Lug Connector

- Manufactured from 6061-T6 aluminum alloy for maximum strength and conductivity
- Open-faced design enables installer to quickly lay-in grounding conductor as jumper to multiple conduits with no break in ground conductor

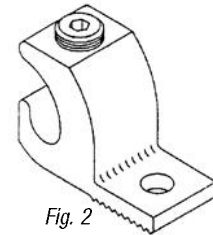
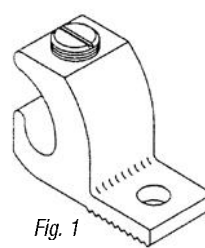
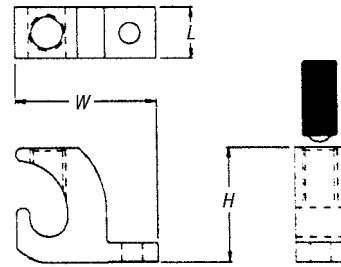


Fig. 1

Fig. 2



CAT. NO.	FIG. NO.	COND. RANGE AWG		STUD SIZE		DIMENSIONS					
						H		W		L	
		IN.	(MM²)	IN.	(MM)	IN.	(MM)	IN.	(MM)	IN.	(MM)
LL414	1	4-14	16-1.5	.22	5.59	.78	19.81	.38	9.65	1.07	27.18
LL1014	1	1/0-14	50-1.5	.27	6.86	1.17	29.72	.60	15.24	1.50	38.10
LL306	2	3/0-6	70-16	.33	8.38	1.56	39.62	.80	20.32	2.00	50.80
LL2506	2	250-6	120-16	.33	8.38	1.79	45.47	.80	20.32	2.20	55.88

90° C Rating (486B Listed)

UL® Listed for direct burial. Copper Lay-in Lug Connector

- Ideal for swimming pool grounding applications
- Carries "DB" marking for direct burial
- Open-faced design enables installer to quickly lay-in grounding conductor as jumper to multiple conduits with no break in ground conductor



CAT. NO.	COND. RANGE AWG		STUD SIZE		DIMENSIONS					
					H		W		L	
	IN.	(MM²)	IN.	(MM)	IN.	(MM)	IN.	(MM)	IN.	(MM)
CULL414	4-14	16-1.5	.22	5.59	.78	19.81	.38	9.65	1.07	27.18
CULL414-TP*	4-14	16-1.5	.22	5.59	.78	19.81	.38	9.65	1.07	27.18

90° C Rating (486B Listed)

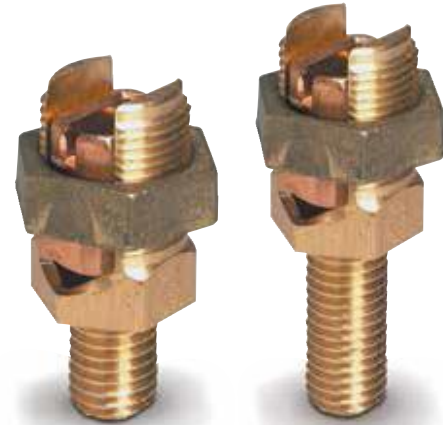
* Tin plated

Structure Grounding

Designed for grounding one or two cables to steel structure or transformer.

Service Post Connectors

- For copper-to-copper connections
- Can also be used to tap one or two cables from bus bar
- Bolts machined from high-conductivity bronze alloy
- Nuts cold-formed from high-strength, corrosion-resistant copper alloy
- Pressure bars copper through 4/0 and copper alloy for 350 kcmil and above
- Bolts and nuts of traditional Blackburn hex design for easy installation
- Available in sizes to accommodate AWG copper conductor ranges of #12–500 kcmil stranded and #12–#2 solid
- Both single- and double-conductor and short- and long-stud versions available
- UL® 486A and UL® 467 Listed



Type SP-S — Service Post Connectors, Short Stud



CAT. NO. CONDUCTOR		CONDUCTORS STRANDED		AWG MM² SOLID		DIAMETER RANGE (IN.)	STUD SIZE
DOUBLE	SINGLE	MAX.	MIN.	MAX.	MIN.		
SP0DS	SP0SS	8 6mm²	12 4mm²	8 10mm²	12 4mm²	.146–.081 —	¼–20 x ½
SP1DS	SP1SS	7 10mm²	10 6mm²	6 10mm²	10 6mm²	.164–.102 —	¼–20 x ½
SP2DS	SP2SS	5 16mm²	10 6mm²	4 —	10 —	.206–.102 —	⅝–18 x ⅝
SP3DS	SP3SS	3 25mm²	10 6mm²	2 —	10 —	.26–.102 —	⅝–16 x ⅝
SP4DS	SP4SS	1 35mm²	8 10mm²	2 —	8 —	.332–.129 —	⅝–16 x ⅝
SP5DS	SP5SS	1/0 50mm²	2 35mm²	1/0 —	2 —	.373–.258 —	½–13 x ¾
SP6DS	SP6SS	2/0 50mm²	2 35mm²	2/0 —	2 —	.419–.258 —	½–13 x ¾
SP8DS	SP8SS	4/0 95mm²	2 35mm²	4/0 —	1 —	.528–.289 —	⅝–11 x 1
SP9DS	SP9SS	350 150mm²	1/0 50mm²	— —	— —	.681–.373 —	⅝–11 x 1
SP10DS	SP10SS	500 240mm²	3/0 95mm²	— —	— —	.814–.47 —	¾–10 x 1¼

Type SP-L — Service Post Connectors, Long Stud



CAT. NO. CONDUCTOR		CONDUCTORS STRANDED		AWG MM² SOLID		DIAMETER RANGE (IN.)	STUD SIZE
DOUBLE	SINGLE	MAX.	MIN.	MAX.	MIN.		
SP0DL	SP0SL	8 6mm²	12 4mm²	8 10mm²	12 4mm²	.146–.081 —	¼–20 x 1
SP1DL	SP1SL	7 10mm²	10 6mm²	6 10mm²	10 6mm²	.164–.102 —	¼–20 x 1
SP2DL	SP2SL	5 16mm²	10 6mm²	4 —	10 —	.206–.102 —	⅝–18 x 1
SP3DL	SP3SL	3 25mm²	10 6mm²	2 —	10 —	.26–.102 —	⅝–16 x 1⅝
SP4DL	SP4SL	1 35mm²	8 10mm²	2 —	8 —	.332–.129 —	⅝–16 x 1⅝
SP5DL	SP5SL	1/0 50mm²	2 35mm²	1/0 —	2 —	.373–.258 —	½–13 x 1¼
SP6DL	SP6SL	2/0 50mm²	2 35mm²	2/0 —	2 —	.419–.258 —	½–13 x 1¼
SP8DL	SP8SL	4/0 95mm²	2 35mm²	4/0 —	1 —	.528–.289 —	⅝–11 x 1½
SP9DL	SP9SL	350 150mm²	1/0 50mm²	— —	— —	.681–.373 —	⅝–11 x 1½
SP10DL	SP10SL	500 240mm²	3/0 95mm²	— —	— —	.814–.47 —	¾–10 x 1¼